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# A barrier-free urban space as an indicator of exercising the right to the city by individuals with disabilities

**S B Abramova, N L Antonova, A D Gurarii**

Department of Political and Social Sciences, Chair of Applied Sociology, Ural Federal University named after the first President of Russia B.N. Eltsin, 19, Mira, Yekaterinburg 620000, Russia

E-mail: sofia\_abramova@mail.ru

**Abstract.** This article looks at urban space through the lens of reimagining the status of individuals with disabilities as people with health issues. Today, they are viewed as a social group who claims their right to the city and to barrier-free urban space, and who is characterized by social interaction. The paper argues for an urgent need of creating universal inclusive spaces and specific areas on the city map which would address special needs of individuals with different forms of disability. The results of a survey of individuals with disabilities, residing in the City of Yekaterinburg and Sverdlovsk Region, as well as expert interviews with representatives of local and regional authorities, indicate that the public bodies are aware of the needs of individuals with disabilities and making attempts to address the requests of this group. The respondents identified the following key problem areas: difficulties of moving around the city, a lack of barrier-free access into buildings, and a lack of sanitary facilities in the visited organizations.

## 1. Introduction

The studies of the challenges associated with disability and the factors of social adaptation and interaction of individuals with disabilities are largely determined by the concept that underlies the normative and everyday practice. The United Nations Convention on the Rights of Persons with Disabilities, ratified by the Russian Federation in 2012, is the fundamental international document which defines the policy of the country in the field of rehabilitation and inclusion of individuals with disabilities.

This paper emphasizes the importance of environmental and relational barriers. The Convention calls for change in the social status, social interaction and social inclusion of individuals with disabilities in public life as its priority. This is achieved, inter alia, by guaranteeing the inclusion of individuals with disabilities in the local community life, in participation in political and public life.

We are currently witnessing how the very concept of ‘individuals with disabilities’ has been evolving: from ‘people with health problems’ to ‘citizens with special needs’. The emphasis is shifting towards exercising the rights of individuals with disabilities in urban environment. Thus, the national project – the Accessible Environment – was launched in Russia in 2011 with the aim to increase the share of accessible objects of social, transport, and engineering infrastructure for people with limited mobility and disabilities. The project is focussing on readjusting buildings and territories in such a way that all people, regardless of their physical abilities, can freely use the services provided by the institutions of healthcare, education, employment, sports, culture, information, transport as well as



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pedestrian infrastructure. The project's legal framework is focussing on guarantying the accessibility of various facilities for individuals with disabilities in urban environment that satisfy their needs and requirements.

The project stipulates that creating an accessible urban environment for individuals with disabilities gives them an opportunity to be integrated into society [1], to lead an independent lifestyle, to express their potential, and to find employment; all of which contributes to reducing the economic burden on the rest of the population. Thus, the perception of the role of individuals with disabilities in consumption and appropriation of urban environment is changing, and the idea of their equal right to live in the city is being molded.

## 2. Materials and Methods

Lefebvre, defining the city as a 'projection of society on the ground', emphasizes its connection with the material and social components [2]. He signals the increased segregation of social groups, which is manifested everywhere and reflected in urban space. However, the key characteristic of a city, according to the author, is its ability to be a product of the cooperative formation by residents. A modern city needs to strengthen the ability of residents to integrate and participate; and social groups capable of initiating and implementing fundamentally new city projects can act as an anchor of this process.

In this context, individuals with disabilities in modern Russian society take a dual position. On the one hand, they act as a group that has undergone an extensive segregation by society and whose right to the city has been infringed to a considerable extent. On the other hand, they are one of the most active actors who 'fight' for the possibility of exercising their rights, including the right to the city.

Boys finds that urban planners for a long time have not taken into consideration the needs of individuals with disabilities when designing urban spaces. The author highlights the importance of the development of architects' awareness of disability as a potential part of everyday bodily experiences. It could manifest in taking into account the requests of this group when designing streets and buildings, including accessibility principles of infrastructure in the construction standards and regulations documents, and providing opportunities of barrier-free movements [3].

Currently, being actively involved in spatial and social mobility, individuals with disabilities are able to produce a fundamentally new outlook on urban environment. This is exactly what Lefebvre called for and expected: to be bolder in putting forward revolutionary projects of a new city.

Today, individuals with disabilities are less dependent on assistance and can move in the city space using its environment without feeling themselves as a focus of charitable activities. Accessibility is a basic concept of a city's design that benefits everyone, but it is especially pertinent to individuals with disabilities [4; 5]. The studies on the accessibility of urban space indicate that a well-designed artificial environment supports social interaction and participation of individuals with disabilities in various facets of life [6; 7]. Lid and Solvang found that people with visual impairments and limited mobility refrain from using certain urban areas when the environment is too hostile [8]. The hostility in this context should be understood not only through the presence of destructive and marginalised groups, but rather as a lack of opportunities for free movement, a lack of accessible infrastructure, and the presence of a significant number of obstacles (for instance, the absence of pedestrian crossings equipped with sound signals for visually impaired people) that cannot be overcome without seeking assistance. A. Dokumaci discovers how disabled people can create different choreographies to manage their daily life and to overcome obstacles [9; 10]. Hence, individuals with disabilities are forced to limit their spatial movements and the appropriation of urban space as well as to reduce the number of interactions and communication.

Various attempts of creating inclusive spaces – universal and specific that satisfy the needs of a limited number of people with disabilities in accordance with their characteristics (nosologies) – have been made to address the pressing issues of individuals with disabilities. Thus, the DeafSpace architectural paradigm, which formulates a set of principles for designing places for the deaf, can be considered as one of the widely replicated acts [11]. In a similar vein, Kusters explores how deaf

people travel on commuter trains in Mumbai and how the railway infrastructure created for such people functions [12]. This paradigm raises a question of whether the needs of a certain group of individuals with disabilities should be addressed as part of the universal space design or multiple spaces should be created for all the groups of individuals with disabilities [13].

When designing urban space, its policy and practices should be aligned with the principles focussing on the integration of individuals with disabilities in urban environment. As Basha rightly posits: *Social inclusion presents a particular challenge in the design of urban environment and raises a number of questions related to mobility and participation in everyday life* [14].

At the same time, individuals with disabilities should become active participants in political decision-making, including those related to the design of city space [15]. Their social interaction becomes the foundation for exercising the right to the city, i.e. the right to change themselves by changing urban space [16].

This research was conducted in the City of Yekaterinburg and Sverdlovsk Region (Russia) in September–November of 2019 with the aim to study the factors of social interaction of individuals with disabilities, including exercising their right to the city. To implement the project, the individuals with disabilities (n=345) and the parents of disabled children (n=195), both under the age of 30, residing in the City of Yekaterinburg (n=90) and Sverdlovsk Region (n=450, 64 settlements) were interviewed. A purposefully built questionnaire included 24 questions (both open- and closed-ended). The results were SPSS-processed. In addition, expert interviews (n=10) were conducted with the representatives of regional government agencies, and the heads of charities located in Sverdlovsk Region. The average interview duration was 30 minutes. The results of the interviews were transcribed, coded and themed in accordance with the objectives of the study.

### 3. Results and discussion

One of the most distinct characteristics of the perception of urban space by individuals with disabilities is its division into two components: a city as a rehabilitation space and a city as a social space (for educational, professional, cultural, leisure and other activities).

In the first case, the city is ‘shrinking’ to the indicators of accessibility of rehabilitation institutions. The territorial proximity of rehabilitation services and the possibility to get all their types becomes a feature of a large city. Therefore, the remoteness of rehabilitation institutions from a place of residence and the ‘dispersion’ around the city becomes a significant barrier: *It is important to consider that if I had such a comprehensive centre that would tell me what services are provided and where they are located, and I would receive these services in this area without riding circles around the city.* (president, the Association for Assistance and Support for Individuals with Developmental Disabilities and their Families, the City of Yekaterinburg)

The individuals with disabilities rated the level of accessibility of rehabilitation institutions as 3.3 out of 5.0 with the social security institutions being the most accessible (3.8) and the labour and employment offices being the least accessible (2.6 points).

When asked about the reasons for accessibility barriers, the respondents indicated a poorly-developed urban policy; a lack of funds for renovating the infrastructure, including the purchase of low-floor public transport; poor monitoring of the implementation of established standards for the accessibility of architectural objects during construction; a lack of public interest in finding the solutions to the problems of individuals with disabilities; a lack of a coherent programme of activities aimed at expanding the range of relevant sources of information available for individuals with disabilities. Therefore, the individuals with disabilities, residing in Sverdlovsk Region who took part in the study, reported the presence of ramps in their municipality (53%), the use of special call buttons (49%), sound signals at the road crossings (34%), and special toilets in public buildings (28%).

In the second case, the city becomes a space not only for self-expression and personal activity of individuals with disabilities, but also for their interaction with other social groups, which might potentially lead to a conflict of interests and, therefore, the need to integrate in order to solve them: *Our environment is now accessible, there has been a shift in our understanding from the principle of*

*'accessible environment' to the principle of 'universal design', when the living space of people is organised in such a way that everything is convenient.* (director of a charity, the City of Yekaterinburg)

Gordon Square in London, designed by landscape architect Gustafson Porter in 2011, can be given as a good example of creating an inclusive (universal) design in the city which allows all its visitors to participate on an equal basis [17]. When interacting in a space which is equally accessible for everyone, regardless of their physical abilities, individuals with disabilities act as equal subjects of shaping urban environment: *Today, we monitor the readiness of institutions in all aspects of information and physical accessibility, but we also need to start monitoring the situation upon request, in order to react in some way to this feedback.* (Deputy Minister of Culture, Sverdlovsk Region)

A 'perceived space' is more articulated among individuals with disabilities in comparison to those who are not physically limited. It can be described as the objective space of material objects with which they interact in everyday life. A person with a disability will pay attention to a range of environmental elements (ramps, signs, sounds, elevators, benches and others) in the areas where an ordinary resident 'will pass and not notice anything'. Consequently, this also creates a more pronounced 'conceived' space which can be described as a set of ideas on how and why the components of urban space should be changed: *We always take initiatives, communicate with colleagues from other countries and try to implement the principles of barrier-free environment here. It's vital for us to move forward so that the world becomes more accessible and people feel more confident.* (Chairman of the Society of Disabled People, the City of Polevskoy)

At the same time, the dualism, or the functional subordination of public buildings and public space, which should 'transform' into each other and make the transition between them less difficult for individuals with disabilities, becomes fundamentally important. This task considerably exacerbates the issue of accessibility of organisations located in old buildings and in the areas with old buildings: *When you construct a new building, accessibility is imposed by the construction standards and regulations. But those who maintain old buildings, naturally, will not spend money on that.* (Head of Vocational Rehabilitation Department of the Employment Centre, the City of Yekaterinburg)

The experts emphasise in their interviews that it is necessary to pay special attention to parents of children with disabilities, as they operate in two 'dimensions' and perceive the world from two perspectives: as a healthy adult and as a child with disabilities. It is these parents who happen to be the most active representatives of social movements aimed at overcoming social barriers for individuals with disabilities [18] and propose initiatives to change urban environment: *Parents are very motivated, very committed, they try to do everything to 'bring up' their child.* (Head of Department, the Regional Centre for Medical Rehabilitation, the City of Yekaterinburg).

Finally, the experts actively support a further study of the opinions of residents (including those with disabilities) and their emotional assessments when planning urban development: *People with disabilities should feel comfortable in the area where they live. People relocate simply because it's better somewhere. We have to talk to them more frequently, to actively include them into committees, to invite them to public hearings.* (founder, a charity for children with disabilities, the City of Kamensk-Uralsky)

Currently, the individuals with disabilities perceive themselves as a fairly discriminated group (63% of the respondents believe that their rights are infringed) whose interests are not the focus of neither state nor society (69% face an unfair attitude towards people with disabilities). They posit that all levels of the support system give the appearance of real care for individuals with disabilities (88% assess the solutions to the problems of individuals with disabilities proposed by the authorities as insufficient). Recognising the leading role of objective indicators in the ranking of countries and regions, urbanists are increasingly suggesting that people are the main capital of the city, and taking their opinions into account is a necessary element in assessing the standing of a particular territory [19; 20].

#### 4. Conclusion

The study draws the following conclusions. First, individuals with disabilities are one of the social groups whose interests and requests for barrier-free operation in urban space are infringed. In modern cities, this issue becomes one of the most important in decision-making about the design of urban environment. This contributes to exercising their right to the city as it allows individuals with disabilities to integrate into public life, develop social interaction, and increase the accessibility of infrastructure.

Second, the survey results indicate that the local and regional authorities are ready to address the needs of individuals with disabilities, to accept and to understand the nature of such requests. However, despite the positive dynamics, this is still much to be achieved in solving the problem areas such as free movement around the territory, entrance to buildings/institutions, and the satisfaction of primary needs in the visited organisations.

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